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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,095	06/02/2000	Pierre Got	3165A-000007	6175

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EXAMINER
MILLER, BRANDON J

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/587,095	Applicant(s) GOT ET AL.	
	Examiner Brandon J Miller	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul in view of Flaugher.

Regarding claim 1 Paul teaches a telecommunications power system with a battery connection module that is connected to a plurality of batteries (see col. 6, lines 27-30). Paul teaches a load, and a rectifier that is connected to a load, a battery connection module, and an alternating current source (see col. 6, lines 27-31, 39-44, & 56-59). Paul teaches a contactor that connects a battery to a load and a controller connected to a contactor (see abstract and col. 6, lines 28-31). Paul does not teach a controller that opens a contactor when a voltage of a battery falls below a low voltage disconnect threshold and closes a contactor after an AC source returns minimizing voltage transients and current surge during reconnection. Flaugher teaches a controller that opens a contactor when a current of a battery falls below a low current disconnect threshold and closes a contactor after an AC source returns minimizing transients and current surge during reconnection (see abstract and col. 4, lines 47-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Paul adapt to include a controller that opens a contactor when a voltage of a battery falls below a low voltage disconnect threshold and closes a contactor after an AC source returns minimizing voltage

transients and current surge during reconnection because this would allow for minimal disruption of an uninterruptible power supply connected to a load apparatus.

Regarding claim 2 a device as recited above is taught except for a controller that lowers a voltage of a rectifier module to a voltage of a battery connection module. Flaugher further teaches a controller that brings a voltage of a rectifier module to a voltage of a battery connection module to a steady state of operation (see abstract col. 3, lines 66-67, and col. 4, lines 6-11 & 50-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Paul and Flaugher adapt to include a controller that lowers a voltage of a rectifier module to a voltage of a battery connection module because this would allow for the control of auxiliary power sources for distribution of backup power to communication devices.

Regarding claim 3 Flaugher teaches after closing a contact gradually increasing the voltage of a rectifier to a float voltage of batteries as batteries recharge (see col. 5, lines 9-12 & 20-23).

Regarding claim 4 Flaugher teaches loads that are connected by a distribution module to a power bus (see col. 3, lines 57-61 and col. 4, lines 5-10).

Regarding claim 5 Paul teaches a first analog to digital (A/D) converter and a neuron for transmitting a rectifier voltage signal to a controller (see col. 9, lines 14-19).

Regarding claim 6 a device as recited in claim 5 is taught above except for a second analog to digital converter and a second neuron module that includes a second analog to digital converter and a second neuron that generates and transmits a battery voltage signal to a controller. Paul does teach an analog to digital (A/D) converter and a neuron which functions as a processor for transmitting a rectifier voltage signal to a controller (see col. 9, lines 14-20).

Flaugher does teach multiple analog to digital (A/D) converters (see col. 4, lines 18-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include second analog to digital converter and a second neuron module that includes a second analog to digital converter and a second neuron that generates and transmits a battery voltage signal to a controller because this would allow for parallel processing which would create faster recovery with two devices.

Regarding claim 7 Flaugher teaches a battery connection that senses a contactor voltage across a contactor (see col. 4, lines 9-15 & 39-41).

Regarding claim 8 Paul teaches a neuron for transmitting a contactor voltage signal to a controller (see col. 9, lines 14-20).

Regarding claim 11 Paul providing power to a load in a telecommunication system that includes a battery subsystem with a plurality of batteries (see col. 6, lines 27-30). Paul teaches a load, and a rectifier that is connected to a load, a battery connection module, and an alternating current source (see col. 6, lines 27-31, 39-44, & 56-59). Paul teaches a contactor that connects a battery to a load and a controller connected to a contactor (see abstract and col. 6, lines 28-31). Paul does not teach monitoring voltage that is output by batteries, a controller that opens a contactor when a voltage of a battery falls below a low voltage disconnect threshold and closes a contactor after an AC source returns minimizing voltage transients and current surge during reconnection. Flaugher teaches monitoring voltage that is output by batteries (see abstract and col. 4, lines 5-10). Flaugher also teaches a controller that opens a contactor when a current of a battery falls below a low current disconnect threshold and closes a contactor after an AC source returns minimizing transients and current surge during reconnection (see abstract and col. 4, lines

47-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Paul adapt to include a controller that opens a contactor when a voltage of a battery falls below a low voltage disconnect threshold and closes a contactor after an AC source returns minimizing voltage transients and current surge during reconnection because this would allow for power saving of an uninterruptible power supply connected to a load apparatus.

Regarding claim 12 Paul and Flaugher teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 13 Paul and Flaugher teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Claims 9-10 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul in view of Flaugher and Farmer.

Regarding claim 9 Paul and Flaugher teach a device as recited in claim 8 except for a controller that is connected by a communication bus that employs a serial communications protocol to a first and second neurons. Paul further teaches a processor for transmitting a rectifier voltage signal to a controller (see col. 9, lines 14-19). Farmer teaches a controller that that employs serial communication in a power system for communication between processors (see col. 8, lines 33-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Paul and Flaugher adapt to include a controller that is connected by a communication bus that employs a serial communications protocol to a first and second neurons because this would allow for the use of communication protocols to be used for the control of auxiliary power sources.

Regarding claim 14 Paul teaches a telecommunications power system comprising a power bus, a battery module, a contactor that connects a battery module to a power bus, a distribution module that is connected to a power bus, and a plurality of loads connected by a distribution module (see abstract, col. 3, lines 3-9 & 12-15 and col. 9, lines 18-19). Paul teaches a rectifier module that is connected to a plurality of alternating current power sources (see col. 3, lines 10-12). Paul does not teach a plurality of rectifiers, a controller that disconnects a battery module when a voltage of a battery module falls below a low voltage disconnect when a rectifier modules fail to provide power, wherein a controller minimizes current surge and high voltage transients when a rectifier modules begin to provide power and controller reconnects a battery module to a load. Flaugher teaches a controller that disconnects a battery module when a voltage of a battery module falls below a low voltage disconnect when a rectifier fails to provide power (see col. 4, lines 47-52). Flaugher also teaches a controller that minimizes current surge and high voltage when a rectifier begins to provide power and a controller reconnects a battery module to a load (see abstract and col. 4, lines 47-60). Farmer teaches a plurality of rectifiers (see col. 8, lines 25-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Paul adapt to include a plurality of rectifiers, a controller that disconnects a battery module when a voltage of a battery module falls below a low voltage disconnect when a rectifier modules fail to provide power, wherein a controller minimizes current surge and high voltage transients when a rectifier modules begin to provide power and controller reconnects a battery module to a load because this would allow for power saving of an uninterruptible power supply connected to a load apparatus.

Regarding claim 15 Paul and Flaugher teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 16 Paul and Flaugher teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 17 Flaugher teaches a controller that is connected to a communications bus (abstract).

Regarding claim 18 Paul and Flaugher teach a device as recited in claim 5 and is rejected given the same reasoning as above.

Regarding claim 19 Paul and Flaugher teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 20 Paul and Flaugher teach a device as recited in claim 7 and is rejected given the same reasoning as above.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paul in view of Flaugher, Farmer andLuebke.

Regarding claim 10 a device as recited in claim 9 is taught above except for employing a CAN protocol. Luebke further teaches using a controller that that employs serial communications (see col. 1, lines 45-50 and col. 3, lines 20-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device above adapt to include employing a CAN protocol because this would allow for the use of variable communication protocols to be used for the control of auxiliary power sources.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawabe U.S Patent No. 6,201,371 discloses an uninterruptible power system.

Savage U.S. Patent No. 5,978,237 discloses a power recovery system.

Shannon U.S. Patent No. 6,169,384 discloses a power source system for portable electronic devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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December 8, 2002

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600